



MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Baltimore MD 21230

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Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Secretary

Anthony G. Brown
Lieutenant Governor

SEP - 2 2014

CERTIFIED MAIL

Mr. James M. Irvin, Director
Howard County Dept. of Public Works
3430 Court House Drive
Ellicott City, Maryland 21043

RE: Discharge Permit for the Little Patuxent Water Reclamation Plant
State Discharge Permit 13-DP-1421, NPDES Permit MD0055174

Dear Mr. Irvin:

Enclosed is the above discharge permit with the effective date indicated on the cover page. The permittee is responsible for complying with all permit conditions. You are therefore advised to read the permit carefully and become thoroughly familiar with the requirements in order to maintain compliance with the permit.

Attached please find a copy of blank and sample forms for your use to calculate monthly load, year-to-date cumulative load and annual maximum load for Total Nitrogen, Total Phosphorus and Total Suspended Solids (TSS). At the end of each calendar year, the permittee will be required to fill out and submit this form along with the Discharge Monitoring Report (DMR) for the month of December. You may contact the Project Manager to obtain this form in an electronic version (EXCEL SPREADSHEET). In conjunction with the State's conversion to Watershed-based Permitting, the reapplication due date for this permit renewal will be 04/01/2017, unless the Department has granted permission for a later date.

Also enclosed are Discharge Monitoring Report Forms (EPA No. 3320-1), which must be completed for each reporting period and submitted (or electronically submitted through NetDMR) to the Department in accordance with the requirements of the permit. Please direct all future correspondence regarding permit compliance, unless directed otherwise by the discharge permit, to the following address:

Page- 2
Mr. Irvin

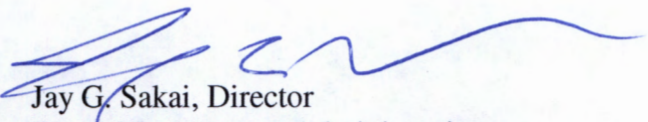
Attention: Discharge Monitoring Reports
WMA - Compliance Program
Maryland Department of the Environment
1800 Washington Boulevard, STE 425
Baltimore, MD 21230-1708

You will also find enclosed a copy of the Code of Federal Regulations, Part 136 - "Guidelines Establishing Test Procedures for Analysis of Pollutants". The most current version of 40 CFR, Part 136 can be found online at U.S Government Printing Office (GPO) website. The link is: http://bit.ly/40CFR_Part136 (This link is case-sensitive). Unless otherwise specified, these guidelines are to be used for the analyses required by this permit.

In addition, we enclosed a copy of the table of the Minimum Monitoring Requirements, a copy of Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data (amended on 05/18/2011)" and a copy of the WWTP Effluent Toxic Chemical Monitoring Data Transmittal Cover Sheet.

If you have any questions, please contact Chris Okoye, Project Engineer, Surface Discharge Permits Division, at (410) 537-3677.

Sincerely,



Jay G. Sakai, Director
Water Management Administration

Enclosures

cc: Mr. Mark Smith, U.S. Environmental Protection Agency
Mr. Bert Nixon, Director, Howard County Health Department
Mr. Dave Lyons
Ms. Cindy Harris (Permit cover page only)
Mr. Bill Lee (with a copy of Summary Report & Fact Sheet)
Mr. Donald Currey, SSA
Mr. Dennis Rasmussen



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DISCHARGE PERMIT

NPDES Discharge

Permit Number: MD0055174

State Discharge

Permit Number: 13-DP-1421

Effective

Date: 10/01/2014

Expiration

Date: 09/30/2019

Modification

Date: (Not applicable)

Reapplication

Due Date: 04/01/2017

Pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and regulations promulgated thereunder, and the provisions of the Clean Water Act, 33 U.S.C. Section 1251 et seq., and implementing regulations 40 CFR Parts 122, 123, 124 and 125, the Department of the Environment hereby establishes conditions and requirements pertinent to the wastewater treatment plant and collection system and authorizes:

Howard County Department of Public Works
3430 Court House Drive
Ellicott City, Maryland 21043

TO DISCHARGE FROM: Little Patuxent Water Reclamation Plant

LOCATED AT: 8900 Greenwood Place
Savage, Howard County, Maryland 20763

THROUGH OUTFALL: 001 (WWTP Effluent)
102 (Re-claimed water pumping station)

TO: the Little Patuxent River which is Use-IP designated waters protected for water contact recreation and nontidal warmwater aquatic life, and to the Federal Reclaim Water Cooling System at the discharge point 102; in accordance with the following special and general conditions and a map incorporated herein and made a part hereof. |

I. DEFINITIONS

- A. “Ambient temperature” of the effluent receiving stream means the water temperature that is not impacted by a point source discharge, and it shall be measured in areas of the stream representative of typical or average conditions of the stream segment in question.
- B. “Bypass” means the intentional diversion of pollutants from any portion of a treatment or collection facility.
- C. “BOD₅ (Biochemical Oxygen Demand)” means the amount of oxygen consumed in a standard BOD₅ test without the use of a nitrification inhibitor at 20 degree centigrade on an unfiltered sample.
- D. “Clean Water Act” means the Federal Water Pollution Control Act, as amended, 33 U.S.C. Section 1251 et seq.
- E. “CFR” means the Code of Federal Regulations.
- F. “COMAR” means the Code of Maryland Regulations.
- G. “Department” means the Maryland Department of the Environment (MDE).
- H. Discharge Limits
 - 1. “Daily *maximum* or (*minimum*)” limitation means the *highest* (or *lowest*) allowable daily discharge in a calendar month. The daily discharge expressed as concentration (in mg/l) shall be calculated by dividing the total of measurement readings by the number of samples collected during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge expressed as loading rate of a parameter (in pounds/day) is calculated by using this formula: {daily average concentration (mg/l) x the same day total flow (in million gallons) x 8.34}.
 - 2. “Weekly average (*maximum* or *minimum*)” limitation means the *highest* or *lowest* allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. Each of the following 7-day periods is defined as a calendar week: Week 1 is Days 1 - 7 of the month; Week 2 is Days 8 - 14; Week 3 is Days 15 - 21; and Week 4 is Days 22 - 28. *For weekly average maximum*, if the "daily discharge" on days 29, 30 or 31 exceeds the "weekly average" discharge limitation, MDE may elect to evaluate the last 7 days of the month as Week 4 instead of Days 22 - 28. *For weekly average minimum*, if the "daily discharge" on days 29, 30 or 31 is lower than the "weekly average" discharge limitation, MDE may elect to evaluate the last 7 days of the month as Week 4 instead of Days 22 - 28.

I. DEFINITIONS

3. “Monthly average *maximum* (or *minimum*)” limitation means the *highest* (or *lowest*) allowable monthly average concentration or waste load of a parameter over a calendar month. The monthly average is calculated as the sum of all daily discharges for a parameter sampled and/or measured in that calendar month divided by the number of days on which monitoring was performed.
4. “Credit load (CL)” means the total nitrogen load reduction credit resulting from connected retired on-site sewage disposal systems (OSDS) expressed as a total monthly loading rate (lbs/month).

See Footnote (10) in Special Condition II.A.2 for the “CL” applicable under this permit

5. (a) “Monthly total loading rate (in pounds/month)” means the total load of a parameter calculated for that calendar month. It is calculated using the formula “{(monthly average concentration in mg/l) x (Total monthly flow in Million Gallons) x 8.34}” only when sampling frequency is less than four days per week, otherwise, it is calculated as the sum of all daily discharge expressed in units of mass divided by the number of days on which monitoring was performed, times the number of days in the month. For any outfall or monitoring point where the required parameter is not monitored for concentration, a specific method of calculation is provided for that outfall in Part II.B of this permit.
- (b) “NET monthly total loading rate (in pounds/month)” means monthly total loading rate of Total Nitrogen calculated for that calendar month as 5(a) above less any onsite septic disposal system credit load (CL) in lbs/month.
6. (a) “Annual Maximum Loading Rate (in pounds/year)” limitation means the highest allowable year-to-date cumulative load of a parameter for a calendar year. It is calculated as the sum of the individual monthly total loading rates from January through the reporting month in a calendar year.
- (b) “Net Annual Maximum Loading Rate (in pounds/year)” limitation means the highest allowable year-to-date (net) cumulative load of a parameter for a calendar year. It is calculated as the sum of the individual “net monthly total loading rates” from January through the reporting month in a calendar year.
7. “Monthly log mean (Monthly geometric mean)” limit means the highest allowable value calculated as the logarithmic or geometric mean of all samples taken in the calendar month. The geometric mean is the antilogarithm of the mean of the logarithms.

I. DEFINITIONS

Discharge Monitoring

8. “Composite sample” means a combination of individual samples obtained at hourly or smaller intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite.
 9. “Grab sample” means an individual sample collected over a period of time not exceeding 15 minutes.
 10. “Estimated flow” value means a calculated volume or discharge rate which is based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters, and batch discharge volumes.
 11. “Measured flow” value means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.
 12. “Recorded flow” means any method of providing a permanent, continuous record of flow including, but not limited to, circular and strip charts.
 13. “Monthly average flow” means the total flow for a calendar month divided by the number of days in the same month.
-
- I. “i-s (immersion stabilization)” means a calibrated device immersed in the effluent or stream, as applicable, until the temperature reading is stabilized.
 - J. “NPDES (National Pollutant Discharge Elimination System)” means the national system for issuing permits as designated by the Clean Water Act.
 - K. “Nondetectable Level” for total residual chlorine means a residual concentration of less than 0.10 mg/l as determined using either the DPD titrimetric or chlorimetric method or an alternative method approved by the Department.
 - L. “Outfall” means the location where the effluent is discharged into the receiving waters.
 - M. “Overflow” means any loss of wastewater or discharge from a sanitary sewer system, combined sewer system or wastewater treatment plant bypass (as defined in I.B) which results in the direct or potential discharge of raw, partially treated wastewater into the waters of the State.
 - N. “Permittee” means an individual or organization holding the discharge permit issued by the Department.

I. DEFINITIONS

- O. “POTW” means a publicly owned treatment works.
- P. “Sampling Point” means the effluent sampling location in the outfall line(s) downstream from the last addition point or as otherwise specified.
- Q. “Sanitary Sewer Overflow (SSO)” means a discharge of untreated or partially treated sewage from a separate sewer system before the sanitary wastewater reaches the headworks of a wastewater treatment facility, pursuant to COMAR 26.08.10.01.
- R. “Significant Industrial User (SIU)” is defined as any industrial user (IU) that:
1. is subject to national categorical standards; and
 2. any other IU that:
 - a. discharges an average of 25,000 gallons per day or more of process wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater); or
 - b. contributes a process wastestream that makes up 5% or more of the average dry weather hydraulic or organic capacity of the POTW; or
 - c. is designated as such by the POTW on the basis that the IU has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement; or
 - d. is found by the POTW, the Department, or the Environmental Protection Agency (EPA) to have significant impact either individually or in combination with other contributing industries to the POTW, on the quality of the sludge, the POTW's effluent quality, or air emissions generated by the system.
- T. “TKN (Total Kjeldahl Nitrogen)” means organic nitrogen plus ammonia nitrogen.
- U. “TSS (Total Suspended Solids)” means the residue retained on the filter by an analysis done in accordance with Standard Methods or other approved methods. |
- V. “Upset” means the exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

II. SPECIAL CONDITIONS

A.1 Effluent Limitations (Nutrient and TSS loads), **Monitoring Point 101**(Final Effluent Sampling Point) ^{(1) (2) (3) (4)(5)(9)}

This location includes an annual loading cap for TN, TP and TSS based on the Bay TML and actual flow ⁽⁵⁾. The quality of the effluent from the facility shall be limited at all times as shown below:

Effluent Characteristics		Maximum Effluent Limits		
	Monthly Total Loading Rate (Pounds/ Month)	Net Monthly Total Loading Rate, ⁽¹⁰⁾ (Pounds/Month)	Annual Maximum Loading Rate, ⁽¹⁰⁾ (Pounds/Year)	Net Annual Maximum Loading Rate (Pounds/Year)
Total Phosphorus ⁽⁶⁾⁽⁷⁾⁽⁸⁾	Report	---	23,358	---
Total Nitrogen ^{(6) (7) (8)}	Report	Report	309,715	Report ⁽¹⁵⁾
Total Suspended Solids ⁽⁵⁾	Report	---	2,284,170	---

Effluent Characteristics	Effluent Limits	
	Maximum	Minimum
E. Coli	126 MPN/ 100 ml monthly geometric mean value	N/A
Total Residual Chlorine ⁽¹¹⁾	UV used	N/A
pH	8.5	6.5
Dissolved Oxygen	N/A	5.0 mg/l at anytime 6.0 mg/l daily average.

An annual average flow of 29 million gallons per day (mgd) was used in waste allocation calculations to establish the effluent limitations specified in A.1 and A.2 and this unit should be used when reporting on the Discharge Monitoring Report (DMR), (EPA Form 3320-1, Rev. 01/06). Notification is to be provided to the Department at least 180 days before the annual average flow is expected to exceed this flow level. If a permit modification is required, the Department will initiate the public participation NPDES process.

II. SPECIAL CONDITIONS

A.2 Effluent Limitations, Outfall **001** ^{(1) (2) (3) (4)}

The quality of the effluent discharged by the facility at Outfall **001** shall be limited at all times as shown below:

<u>Effluent Characteristics</u>		<u>Maximum Effluent Limits</u>			
		<u>Monthly Average Loading Rate, Pounds/day</u>	<u>Weekly Average Loading Rate, Pounds/day</u>	<u>Monthly Average Concentration, mg/l</u>	<u>Weekly Average Concentration, mg</u>
BOD ₅	4/1 to 10/31	1200	1800	5.0	7.5
	11/1 to 3/31	6300	9400	26	39
Total Ammonia					
Nitrogen as N	4/1 to 10/31	180	270	0.75	1.1
	11/1 to 3/31	1700	---	7.0	---
Total Suspended Solids (TSS)		6300	9400	26	39

	<u>Monthly Total Loading Rate</u>	<u>Annual Maximum Loading Rate</u>
Total Nitrogen	Report ⁽²⁶⁾	Report
Total Phosphorus	Report ⁽²⁶⁾	Report

An annual average flow of 29 million gallons per day (mgd) was used in waste allocation calculations to establish the effluent limitations specified in A.1 and A.2 above and this unit should be used when reporting on the Discharge Monitoring Report (DMR), (EPA Form 3320-1, Rev. 01/06). Notification is to be provided to the Department at least 180 days before the annual average flow is expected to exceed this flow level. If a permit modification is required, the Department will initiate the public participation NPDES process.

- (1) When this permit is renewed, the new limitations might not be equal to the above limitations.
- (2) There shall be no discharge of floating solids or visible foam other than trace amounts.
- (3) The permit may also be reopened in accordance with the requirements of MDE's Watershed Permitting Plan under which all discharge permits in a watershed are issued the same year.
- (4) The Little Patuxent River is on the 303(d) list as impaired waters for nutrient, sediment, cadmium, and impact to biological communities. Centennial Lake located within the watershed was identified as impaired by nutrients and sediments, and have been addressed by TMDLs approved in 2002. The cadmium listing has been addressed by a Water Quality Analysis submitted in 2008 that showed no impairment. A Total Maximum Daily Load (TMDL), approved by the EPA on 9/30/2011 for nutrient and sediment, and the discharge permit TSS limit is in conformance with this TMDL.

When TMDLs for other remaining parameters are completed, limits may be imposed, after the public participation process, to incorporate any TMDL requirements.

II. SPECIAL CONDITIONS

- (5) This permit is in conformance with the “Chesapeake Bay TMDL for Nitrogen, Phosphorus and Sediment” established on December 29, 2010.
- (6) The Annual Maximum Loading Rate limits of 309,715 lbs/yr total nitrogen, and 23,358 lbs/yr total phosphorus include 5,159 lbs/yr TN and 516 lbs/yr TP WLA loads from the retirement and connection of the MD-VA Milk Producers WWTP (MD 0000469) to the Little Patuxent WRP.
- (7) The permittee shall operate the ENR facility in a manner that optimizes the nutrient removal capability of the facility.
- The first exceedance of the permit limit shall be counted and reported as daily exceedances beginning from the first exceedance, determined to the nearest day, through December 31. In addition, after any such exceedance, the permittee shall demonstrate to the Department's satisfaction that the facility is optimizing its nutrient removal capability, and neither the arrival of the next calendar year nor the issuance of a permit renewal during a period of noncompliance shall obviate continuance of any noncompliance status related to treatment optimization requirements.
- (8) For Outfall **101**, at the end of each calendar year the permittee shall comply with the *concentration-based* limitations for the Annual Maximum Loading Rate defined below in addition to the TMDL-based loading rate limitations:
- (a) TN Limitation (lbs/year): **4.0** mg/l x annual total flow (calendar year based in million gallons per year) x 8.34 or the combination of total nitrogen waste load allocations specified in Special Condition II.A.1 and Onsite Septic Disposal System (OSDS) credit (see footnote 10), whichever is lower. To the extent that the permittee alleges that temperature levels of 12 degrees C or lower have diminished the treatment system's capability of complying with this *concentration-based* loading rate limitation for Total Nitrogen, the permittee shall provide notification beginning with the calendar year report under the “Upset” provision in Section III.B.6 of this permit. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.
- (b) TP Limitation (lbs/year): **0.30** mg/l x annual total flow (calendar year based in million gallons per year) x 8.34 or the total phosphorus waste load allocations specified in Special Condition II.A.1., whichever is lower.
- The details and results of the required annual calculations for the above concentration-based limits shall be submitted to the Department with the Discharge Monitoring Report for December.
- Note: When the average annual wastewater flow approaches 29 MGD, an annual total nitrogen concentration of 3.5 mg/l and total phosphorus concentration of 0.25 mg/l would be necessary achieve an annual TN load of 309,715 lbs/yr and TP of 23,358 lbs/yr.
- (9) The permittee may request that the permit be reopened and modified to include nutrient trading consistent with the most current "Maryland Policy for Nutrient Cap Management and Trading in Maryland's Chesapeake Bay Watershed" in effect at that time.
- (10) A TN nutrient credit of **80.5** lbs/mon (no more than **966** lbs/year) applies for reporting and compliance purpose, resulting from retiring and connecting onsite sewerage disposal system (OSDS) to the Little Patuxent Water Reclamation Plant (See Special Conditions, footnote (15) and definitions I. H.4, I.H.5(b) and I.H.6(b).
- (11) Total residual chlorine limitation of 0.013 mg/l shall apply only if chlorine or chlorine-containing compound is used in the wastewater treatment. The minimum level (quantification level) for total residual chlorine is 0.10 mg/l. The permittee may report all results below the minimum level as <0.10 mg/l (less than 0.10 mg/l).

II. SPECIAL CONDITIONS

B.1 Minimum Monitoring Requirements - Monitoring Point **101**⁽²⁹⁾:

The effluent characteristics listed below shall be monitored:

<u>Effluent Characteristics</u>	<u>Monitoring Period</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
BOD ₅ ^{(12) (13)}	All Year	5 Days per Week	24-hour composite
Total Suspended Solids ^{(12) (15)(18)}	All Year	5 Days per Week	24-hour composite
Total Ammonia Nitrogen as N ^{(12)(13) (14)}	All Year	One per Day	24-hour composite
Total Phosphorus as P ⁽¹²⁾⁽¹⁵⁾	All Year	One per Day	24-hour composite
Total Nitrogen as N ⁽¹²⁾⁽¹⁴⁾⁽¹⁵⁾	All Year	One per Day	Calculated
(Nitrite + Nitrate) as N ⁽¹²⁾⁽¹³⁾⁽¹⁴⁾	All Year	One per Day	24-hour composite
Organic Nitrogen as N ⁽¹²⁾⁽¹³⁾⁽¹⁴⁾	All Year	One per Day	24-hour composite
Orthophosphate as P ⁽¹²⁾⁽¹³⁾	All Year	One per month	24-hour composite
Flow ⁽¹²⁾⁽¹⁹⁾⁽²⁰⁾	All Year	Continuous	Recorded ⁽²⁰⁾
-Total Monthly Flow ⁽¹²⁾⁽²¹⁾	All Year	Monthly	Calculated ⁽²¹⁾
E. Coli ^{(12) (21)}	All Year	Three per week	Grab
Total Residual Chlorine ⁽¹²⁾⁽¹⁶⁾	All Year	Three per day	Grab
Dissolved Oxygen ⁽¹²⁾⁽¹⁸⁾	All Year	Two per Day	Grab
pH ⁽¹²⁾⁽¹⁸⁾	All Year	Two per Day	Grab

II. SPECIAL CONDITIONS

B.2 Minimum Monitoring Requirements - Outfall 001:

The effluent characteristics listed below shall be monitored:

<u>Effluent Characteristics</u>	<u>Monitoring Period</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
BOD ₅ ⁽¹²⁾	All Year	5 Days per Week	Calculated
Total Suspended Solids ⁽¹²⁾⁽¹⁸⁾⁽²⁶⁾	All Year	5 Days per Week	Calculated
Total Ammonia Nitrogen as N ⁽¹²⁾⁽¹⁴⁾	All Year	One per Day	Calculated
Total Phosphorus as P ⁽¹²⁾⁽²⁶⁾	All Year	One per Day	Calculated
Total Nitrogen as N ⁽¹²⁾⁽¹⁴⁾⁽²⁶⁾	All Year	One per Day	Calculated
(Nitrite + Nitrate) as N ⁽¹²⁾⁽¹³⁾⁽¹⁴⁾	All Year	One per Day	Calculated
Organic Nitrogen as N ⁽¹²⁾⁽¹³⁾⁽¹⁴⁾	All Year	One per Day	Calculated
Orthophosphate as P ⁽¹²⁾⁽¹³⁾	All Year	One per month	Calculated
Flow ⁽¹²⁾⁽¹⁹⁾⁽²⁸⁾	All Year	Daily	Calculated
Total Monthly Flow ⁽¹²⁾	All Year	Monthly	Calculated ⁽²¹⁾

II. SPECIAL CONDITIONS

- B.3** Non-Potable Water Requirements- Monitoring Point **102** (Pumping Station): The non-potable water flow and total residual chlorine (TRC) concentrations shall be monitored, and the other effluent characteristics listed below calculated:

<u>Effluent Characteristics</u>	<u>Monitoring Period</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Total Suspended Solids ^{(12)(18) (27)}	All Year	5 Days per Week	Calculated
Total Phosphorus as P ⁽¹²⁾⁽²⁷⁾	All Year	One per Day	Calculated
Total Nitrogen as N ⁽¹²⁾⁽¹⁴⁾⁽²⁷⁾	All Year	One per Day	Calculated
Flow ⁽¹²⁾⁽¹⁹⁾⁽²⁰⁾	All Year	Continuous	Recorded ⁽²⁰⁾
Total Monthly Flow ⁽¹²⁾⁽²¹⁾	All Year	Monthly	Calculated ⁽²¹⁾
Total Residual Chlorine ^{(12) (17)}	All Year	One per Day	Grab

Monitoring Requirements, Continued:

Footnotes for the monitoring requirement

- (12) "STORET" (short for STORage and RETrieval) is a widely-used repository for water quality data reporting and monitoring. The STORET codes for the effluent characteristics described as limitations and/or monitoring requirements are: BOD₅ (00310), Total Suspended Solids (00530), Total Ammonia Nitrogen as N (00610), Total Phosphorus as P (00665), Total Nitrogen as N (00600), (Nitrite + Nitrate) as N (00630), Organic Nitrogen as N (00605), Orthophosphate as P (04175), E. Coli (51040), Total Residual Chlorine (50060), Dissolved Oxygen (00300), pH (00400), Flow (50050), Total monthly flow (82220).
- (13) This parameter (without effluent limitations) must be monitored, and it shall be reported on the Monthly Operating Report (MOR) as individual results and on the Discharge Monitoring Report (DMR) (EPA Form 3320-1) as monthly average concentrations.
- (14) Total nitrogen as N (in mg/l) is a calculated parameter as the sum of individual results for total ammonia nitrogen as N, organic nitrogen as N and (nitrite + nitrate) as N. All the nitrogen species must be sampled on the same day.
- (15) (Monitoring Point 101 only): Prior to diverting reclaimed water to the Federal System, the permittee shall calculate and report the Monthly Total Loading Rates and the Cumulative Annual Loading Rates for nitrogen, phosphorus, and suspended solids on the DMR (see definition I.H.5.a and H.6.a).
- The permittee shall also report on the DMR the Net Monthly Total Loading Rates and the Net Annual Maximum Loading Rates for nitrogen, calculated as the annual cumulated loading rate reported at Monitoring Point 101 LESS the approved OSDS credit load. The Net Monthly Total Loading Rate is the Monthly Total Loading Rate reported at Monitoring Point 101 LESS 80.5 lbs/month (See definition I.H.6), a monthly prorated load based on the approved 966 lbs/year annual credit load (see definition I.H.4.).
- (16) The minimum monitoring requirements of three per day-grab samplings for total residual chlorine shall be applicable only when the wastewater at the Little Patuxent WRP is treated with chlorine or any chlorine compound. The minimum detection level (quantification level) for total residual chlorine is 0.10

II. SPECIAL CONDITIONS

mg/l. The permittee may report all results below the minimum level as <0.10 mg/l. All results reported below the minimum level shall be considered in compliance.

- (17) Monitoring only parameter for effluent reuse purpose. The monitoring results shall be reported as daily minimum and monthly average concentrations (See Special Conditions II.J for additional details).
- (18) If the monthly average limitations for TSS, dissolved oxygen and pH are exceeded while the monitoring frequency is at 5 per-week for TSS and 2 per-day for DO and pH, then the monitoring frequency for the violated parameter shall automatically revert to once per-day for TSS, and 3 per-day for DO and pH, and remain as such for the permit life cycle.
- (19) Flows shall be reported in millions gallons per day (mgd) to at least the nearest 10,000 gallons per day. (Example: A flow of 1,524,699 gallons per day shall be reported as 1.53 mgd.). For each calendar month, flows shall be reported on the MOR as daily individual results and on the DMR as monthly average (mgd) and daily maximum (mgd).
- (20) Continuous electronic flow measurement and recording which can produce a permanent record are acceptable to the Department.
- (21) "Total monthly flow" is a calculated parameter equal to sum of the daily flow results in a calendar month. It shall be reported on the monthly DMR as Total monthly flow in millions gallons (MG) to at least the nearest 10,000 gallons. (Example: A flow of 1,524,699 gallons shall be reported as 1.53 MG).

B.4 Report Submittal Requirements

Report Description	Reporting Frequency	Report Submittal Deadline
Effluent Biomonitoring Study Plan and Toxic Chemical Testing Plan ⁽²²⁾⁽²³⁾	See footnote – 23	See footnote – 23
Effluent Biomonitoring Study Report ⁽²²⁾⁽²⁴⁾	See footnote- 24	See footnote- 24
Effluent Toxic Chemical Testing Report ⁽²²⁾⁽²⁵⁾	See footnote - 25	See footnote- 25

- (22) If the permittee has selected a third party for submitting reports to the Department, the permittee must provide to the third party with a document of authorization for report submission which is required with the report.
- (23) Within three months from the effective date of this permit, the permittee shall submit the Study Plans for effluent biomonitoring as well as toxic chemical testing and obtain approval from the Department.
- (24) After MDE's approval of the Effluent Biomonitoring Study Plan, the permittee shall perform the effluent biomonitoring study and submit the comprehensive report to the Department as per requirements of the Special Condition II.D. The reporting frequency of this report shall be once per year for four years beginning effective date of this permit. The report shall be submitted to the Department along with the DMR for the month during which the test was completed, and it shall be postmarked by the 28th of the month following the test completion month. (Example: If the test is completed in March, the comprehensive report shall be submitted with the March DMR postmarked by 28th April).
- (25) After MDE's approval of the Effluent Toxic Chemical Testing Plan, the permittee shall perform the effluent toxic chemical testing and submit the comprehensive report to the Department as per requirements of the Special Condition II.F. The reporting frequency of this report shall be once per year for three years beginning effective date of this permit. The report shall be submitted to the Department along with DMR for the month during which the test was completed, and it shall be postmarked by the 28th of the month

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following the test completion month. (Example: If the test is completed in March, the comprehensive report shall be submitted with the March DMR postmarked by 28th April).

- (26) (Outfall 001 only): This monitoring point does not require effluent concentrations monitoring for all parameters. Each month the permittee shall calculate, and report on the DMR, the Monthly Total Loading Rates for all parameters listed in Outfall 001. The Monthly Total Loading Rates for parameters required at outfall 001 shall be calculated based on the effluent concentrations measured daily at monitoring point 101 and the daily flows measured at Outfall 001.
- (27) Monitoring Point 102 in Special Condition B.3: This monitoring point does not include monitoring requirements for concentration. Each month the permittee shall calculate and report on the DMR the TSS, nitrogen, and phosphorus Monthly Total Loading Rates and the Annual Maximum Loading Rates (see definitions H.5.a and H.6.a). The Monthly Total Loading Rates shall be calculated using the daily concentrations measured at MP 101 while applying the daily flows measured at Monitoring Point 102.
- (28) Outfall 001 Daily Flow shall be calculated as the measured flow at Monitoring Point 101 minus the measured flow at Monitoring Point 102.
- (29) The effluent samples at the Sampling Point 101 shall be representative of the effluent quality at Outfall **001**. The permittee shall notify the Department and provide justification in accordance with conditions specified in Section III.B.11 of this permit when an alternative sampling location is selected.

C. Capacity Management Plan

The permittee shall report total cumulative flow for the each calendar year for the above referenced facility. The total cumulative flow should be reported in million gallons for the entire calendar year to the nearest ten thousand gallons. The annual total cumulative flow determination shall be provided to the Department by January 28 of the following year to the address below:

Attention: Calendar Year Total Cumulative Flow
WMA – Wastewater Discharge Permits Program
Maryland Department of the Environment
1800 Washington Boulevard, STE-455
Baltimore, MD 21230-1708

A Wastewater Capacity Management Plan must be submitted by January 28 of each calendar year if the most recent three year average flow is over 80% of its design capacity or if it is anticipated to exceed 80 % in the following year. (The Department has published a “Wastewater Capacity Management Plans” guidance document, which can be found on the Department’s web site as indicated below):

<http://www.mde.state.md.us/assets/document/water/WastewaterCapacityMgmtGuidance.pdf>.

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D. BIOMONITORING PROGRAM

1. Within three months of the effective date of the permit, the permittee shall submit to the Department for approval a study plan to evaluate wastewater toxicity at Outfall **001** by using biomonitoring. The study plan should include a discussion of:
 - a. wastewater and production variability
 - b. sampling & sample handling
 - c. source & age of test organisms
 - d. source of dilution water
 - e. testing procedures/experimental design
 - f. data analysis
 - g. quality assurance/quality control
 - h. report preparation
 - i. testing schedule
2. The testing program shall consist of definitive four annual chronic testing events. The testing events shall be conducted annually during January or February of each of the first four years after approval of the study plan. This testing shall be initiated no later than the January or February following the Department's acceptance of the study plan. Each annual testing event shall include the Ceriodaphnia survival and reproduction test and the fathead minnow larval survival and growth test.)
3. The samples used for biomonitoring shall be collected at the same time and location as the samples analyzed for the effluent limitations and monitoring requirements for this outfall. For chlorinated effluents, samples shall be collected after dechlorination. The permittee shall collect 24-hour flow-proportioned composite samples unless the Department has given prior approval of an alternative sampling type.
4. The following EPA document discusses the appropriate methods:

Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms Fourth Edition, EPA-821-R-02-013, October, 2002

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5. Test results shall be submitted to the Department within one month of completion of each set of tests.
6. Test results shall be reported in accordance with MDE/WMA "Reporting Requirements for Effluent Biomonitoring Data," 3/21/03.
7. As a minimum, the reported chronic results shall be expressed as NOEC, LOEC, ChV, and IC₂₅.
8. If a 50% mortality or greater occurs in one or more effluent concentrations during the first 48 hours of the chronic tests, 48-hour LC₅₀s shall be calculated and reported along with the chronic results
9. If testing is not performed in accordance with MDE-approved study plan, additional testing may be required by the Department.
10. If the test results of any two consecutive valid toxicity tests show acute or chronic toxicity (LC₅₀ equal to or less than 100% for acute tests and an IC₂₅ equal to or less than the in-stream waste concentration for chronic tests), the permittee shall repeat the test within 30 days to confirm the findings of acute or chronic toxicity. Intermittent toxicity or other concerns may require additional testing or limits. If acute and/or chronic toxicity is confirmed, the permittee shall:
 - a. Eliminate the source of toxicity through operational changes as soon as possible but in any case not longer than within three months, or
 - b. Perform a TRE. If the permittee repeats the toxicity testing as stated above and the results of the repeat test do not confirm the acute or chronic toxicity, the Department will require the permittee to repeat the toxicity testing as stated above to reconfirm a finding of no acute or chronic toxicity. After reconfirmation, the permittee shall complete any remaining quarterly testing required.
11. If the permittee completes a TRE in accordance with II.E.10.b and unacceptable toxicity is confirmed, a Whole Effluent Toxicity (WET) permit limit and a compliance schedule will be required.
12. To address federal NPDES requirements for WET testing and limits, MDE shall implement permit limits in a new or renewal permit when a WET test result shows reasonable potential for toxicity unless it can be demonstrated that the source of toxicity has been eliminated, inappropriate test procedures were utilized, or the source has been controlled via a chemical specific permit limitation. Where reasonable potential has been assumed based on one test result, the permit shall include a WET limit effective within three years unless

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the effluent shows no toxicity in six follow-up quarterly tests. The permit may be modified to remove the WET limit if the six follow-up quarterly tests show no toxicity.

13. If plant processes or operations change so that there is a significant change in the nature of the wastewater, the Department may require the permittee to conduct a new set of tests.
14. If a significant industrial user locates within the service area so that significant change in the nature of the wastewater might be anticipated, MDE may require the permittee to conduct a new set of tests.
15. Submit all Biomonitoring related materials to:

Maryland Department of the Environment
Water Management Administration
Compliance Program
1800 Washington Blvd., Suite 420
Baltimore, MD 21230-1708

E. Toxicity Reduction Evaluation (TRE)

The permittee shall conduct a Toxicity Reduction Evaluation (TRE) when a review of toxicity test data by the Department indicates unacceptable acute or chronic effluent toxicity. A TRE is an investigation conducted to identify the causative agents of effluent toxicity, isolate the source(s), determine the effectiveness of control options, implement the necessary control measures and then confirm the reduction in toxicity.

1. Within 90 days of notification by the Department that a TRE is required, the permittee shall submit for approval by the Department a plan of study, schedule and completion date for conducting a TRE. The permittee shall conduct the TRE study consistent with the submitted plan and schedule.
2. This plan should follow the framework presented in Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA/833B-99/002) August 1999.

Additional Guidance documents on the TRE process are shown below:

Methods for Aquatic Toxicity Identification Evaluations Phase I Toxicity Characterization Procedures, Second Edition, United States Environmental Protection Agency Office of Research and Development Washington, DC 20460, EPA/600/6-91/003 February 1991.

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Methods for Aquatic Toxicity Identification Evaluations Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity, United States Environmental Protection Agency Office of Research and Development, EPA/600/R-92/080 September 1993 Washington DC 20460.

Methods for Aquatic Toxicity Identification Evaluations Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity, United States Environmental Protection Agency Office of Research and Development Washington DC 20460, EPA /600/R-92/08 1 September 1993.

Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program, March 27, 2001, U.S. Environmental Protection Agency, Office of Wastewater Management , Office of Regulatory Enforcement, Washington, DC 20460.

3. Beginning 60 days from the date of the Department's acceptance of the TRE study plan and every 60 days thereafter, the permittee shall submit progress reports including all relevant test data to the Department. This shall continue until completion of the toxicity reduction confirmation.
4. Within 60 days of completion of the toxicity identification or the source identification phase of the TRE, the permittee shall submit to the Department a plan, schedule and completion date for implementing those measures necessary to eliminate acute toxicity, an LC50 greater than 100%, and/or eliminate chronic toxicity, an IC25 greater than the in-stream waste concentration (IWC). The implementation of these measures shall begin immediately upon submission of this plan.
5. Within 60 days of completing the implementation of the control measures to eliminate or reduce toxicity, the permittee shall submit to the Department for approval a study plan to confirm the elimination or reduction of toxicity by using biomonitoring.
6. If, for any reason, the implemented measures do not result in compliance with the Department's toxicity limitations, the permittee shall continue the TRE and a Whole Effluent Toxicity (WET) permit limit and a compliance schedule will be required.
7. Submit all TRE-related materials to:

Maryland Department of the Environment
Water Management Administration
Compliance Program
1800 Washington Blvd., Suite 420
Baltimore, MD 21230-1708

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F. Toxic Chemical Testing

1. Concurrent with the biomonitoring study plan, the permittee shall submit to the Department for approval, a study plan to perform three sets of analytical testing for toxic chemicals.
2. The toxic chemical testing study plan shall include a description of:
 - a. sampling methods;
 - b. analytical methods;
 - c. practical detection levels; and
 - d. quality control procedures.
3. Concurrently with the first three biomonitoring toxicity tests, the permittee shall perform analytical testing for the toxic chemicals identified in the Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data" (05/18/2011).
4. Substances other than those identified in Section 3 above may be detected in the effluent. If so, the permittee shall identify and quantify the ten present in highest concentration for those compounds for which standards are available.
5. Results of each toxic chemical test performed as per Sections II.F.3 and II.F.4 shall be submitted to the Department with results of the concurrent biomonitoring toxicity test.
6. Toxic chemical testing results shall be reported in accordance with the Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data" (05/18/2011).
7. If testing is not performed in accordance with the Department's approved study plan, additional testing may be required by the Department.
8. Submit all toxic chemical testing related materials to:

Attention: Toxic Chemical Data
Maryland Department of the Environment
Water Management Administration
Compliance Program
Montgomery Park Business Center
1800 Washington Boulevard, STE 420
Baltimore, MD. 21230-1708

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G. Pretreatment Program

The permittee shall operate and maintain the pretreatment program in accordance with COMAR 26.08.08, the General Pretreatment Regulations for Existing and New Sources of Pollution (40 CFR Part 403) and the approved pretreatment program submission as approved on 08/07/1985 by the Department. The program must be updated if needed to comply with COMAR 26.08.08 or 40 CFR Part 403 or modifications to the State of Maryland Publicly Owned Treatment Works (POTW) Pretreatment Delegation Agreement signed on 11/07/1991 and as amended on 07/09/2001. The terms of the POTW Pretreatment Delegation Agreement are expressly incorporated herein as if set forth in full.

H. Protection Of Water Quality

It is a violation of this permit to discharge any substance not otherwise listed under the permit's "Effluent Limitations and Monitoring Requirements" special conditions at a level which would cause or contribute to any exceedance of the numerical water quality standards in COMAR 26.08.02.03 unless the level and the substance were disclosed in writing in the permit application prior to the issuance of the permit. If a discharge regulated by this permit causes or contributes to an exceedance of the water quality standards in COMAR 26.08.02.03, including but not limited to the general water quality standards, or if the discharge includes a pollutant that was not disclosed or addressed in the public record for the permit determination, the Department is authorized to modify, suspend or revoke this permit or take enforcement action to address unlawful discharges of pollutants.

I. Reapplication for a Permit

No later than 04/01/2017, unless permission for a later date has been granted by the Department, the permittee shall submit a new application for a permit or notify the Department of the intent to cease discharging by the expiration date. In the event that a timely and complete reapplication has been submitted and the Department is unable, through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit continue and remain fully effective and enforceable. The renewal application is required by that date in accordance with the requirements of MDE's Watershed Permitting Plan under which all discharge permits in a watershed should be issued in the same year.

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J. Reclaimed Water Total Residual Chlorine Concentration and Turbidity Requirements.

- (a) The Permittee shall ensure that the effluent supplied from the Little Patuxent Water Reclamation Plant (WRP) is chlorinated and maintained with adequate level of free chlorine residual in the reclaimed water system when it reaches the receiving reclaimed water tank at the Federal Facility. The permittee shall monitor the residual chlorine in the reclaimed water sent to the Federal Facility continuously at the pumping station specified as Monitoring Point **102** in this permit. The results of the residual chlorine monitoring shall be reported in the Discharge Monitoring Report (DMR, EPA Form 3320-1) as monthly average concentrations and submitted to the Department. The permittee shall provide re-chlorination infrastructures at the elevated reclaimed water tank located inside the Federal Facility area to ensure additional chlorine, if necessary, can be added to the reclaimed water system to ensure that detectable chlorine residual level is maintained in the reclaimed water on-site storage and prior to use in the cooling water makeup system.
- (b) The permittee shall install a continuous on-line turbidity meter at the reclaimed water pumping station (Monitoring Point **102**) for continuous monitoring on the turbidity of the re-claimed water sent to the Federal facility in accordance with the procedures specified in 40 CFR 136. The monitoring records for turbidity shall be maintained by the facility to be available upon request from the Department. Data obtained from the continuous on-line analyzer shall be reported to MDE along with the monitoring data for free residual chlorine as specified above. In the event when turbidity exceeds 5 NTU in the supplied reuse water, the permittee shall notify the Federal Facility to use an alternative water source in lieu of the cooling tower storage tank reclaimed water. In addition, the Reclaimed Water Pumping Station shall be temporarily shut-off until proper turbidity level is restored". The results of the turbidity monitoring shall be reported in the Discharge Monitoring Report (DMR, EPA Form 3320-1) as daily maximum NTUs and submitted to the Department.

K. Reclaimed Water Supplier and User Obligations.

To ensure mutual understanding on the obligations to comply with the total residual chlorine and turbidity requirements specified in this permit. The permittee shall submit a "Memorandum of Understanding" (MOU) between the supplier and user of the reclaimed water to the Department with the above permit requirements incorporated.

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A. Monitoring and Reporting

1. Representative Sampling

Samples and measurements shall be taken at times that are representative of the quantity and quality of the discharge, and at evenly spaced intervals.

2. Monthly Monitoring Results

a. Discharge Monitoring Reports

Monitoring results obtained each month shall be summarized on a Discharge Monitoring Report form (EPA No. 3320-1). The permittee shall submit the Discharge Monitoring Reports to the Department postmarked no later than the 28th of the month following the reporting month. A signed original plus a copy of these reports shall be submitted to:

Attention: Discharge Monitoring Reports
WMA - Compliance Program
Maryland Department of the Environment
1800 Washington Boulevard, STE-425
Baltimore, MD 21230-1708

A signed copy of these reports shall also be sent to:

U.S. Environmental Protection Agency, Region III
NPDES Enforcement Branch (3WP42)
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Paper DMR submittal to MDE and U.S EPA as required above shall be applicable until the NetDMR submittal program is finalized and implemented by the Little Patuxent Water Reclamation facility. Upon the implementation, the permittee shall submit NetDMR to comply with the Discharge Monitoring Report (DMR) submittal requirements.

b. Monthly Operating Reports

The permittee shall submit monthly operating reports on a form acceptable to the Compliance Program. A signed original plus a copy of these reports shall be submitted to the Compliance Program postmarked no later than the 28th day of the month following the reporting month.

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c. Toxic Chemical Reporting

Any data collected according to the Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data" (05/18/2011) being submitted to the Department, either in fulfillment of Special Conditions II.B or pursuant to the toxic chemical testing requirement, pretreatment requirements or toxic metals or organic data collected on a voluntary basis, must be accompanied by laboratory data reports. At a minimum, these reports shall include, the name of the facility, the date(s) of sampling, beginning and ending sample time, place of sampling collection, the sample type (grab, composite, etc.), the sample description (influent or effluent), the preservation method, the analytical method used for each parameter, the analytical method detection limit, the date of analysis, the name of person performing the analysis, the analytical result, and the name and address of the laboratory performing the analyses. Chain-of-custody forms shall also be submitted. This information, along with the supporting documentation, shall be submitted to:

Attention: Toxic Chemical Data
WMA – Compliance Program
Maryland Department of the Environment
1800 Washington Boulevard, STE 420
Baltimore, Maryland 21230-1708

3. Sampling and Analysis Methods

Analytical and sampling methods shall conform to test procedures for the analysis of pollutants as identified in 40 CFR Part 136 - "Guidelines Establishing Test Procedures for the Analysis of Pollutants."

4. Analytical Laboratory

Within 30 days after the effective date of this permit, the permittee shall submit to the Department the name and address of the analytical laboratory (including the permittee's own laboratory) which is used to perform the monitoring required by this permit.

If the laboratory changes during the effective period of this permit, the permittee shall notify the Department of the new laboratory within 30 days after the change.

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5. Monitoring Equipment Maintenance

- a. The permittee shall calibrate and maintain all monitoring and analytical instrumentation to ensure accuracy of measurements.
- b. Environment Article, Section 9-343 provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

6. Recording of Results

For each measurement or sample taken pursuant to the requirements of the permit, the permittee shall record the following information:

- a. the date, exact place and time of sampling or measurement;
- b. the person(s) who performed the sampling or measurement;
- c. the dates analyses were performed;
- d. the person(s) who performed each analysis;
- e. the analytical techniques or methods used; and
- f. the results of such analyses.

7. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report form (EPA No. 3320-1). The increased frequency shall also be reported. The results of any other monitoring performed by the permittee shall be made available to the Department upon request.

8. Record Retention

All data used to complete the permit application and all records and information resulting from the monitoring activities required by this permit, including all records of sampling and analyses performed, calibration and maintenance of

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instrumentation, and recordings from continuous monitoring instruments, shall be retained for a minimum of three years. This period shall be extended automatically during the course of litigation or when requested by the Department.

B. General Requirements

1. Permit Noncompliance - Notification Requirements

All discharges authorized herein shall be consistent with the terms and conditions of this permit. If, for any reason, the permittee does not comply with or will be unable to comply with any permit condition, the permittee shall, within 24 hours, notify the Department by telephone at (410) 537-3510 during work hours or at (866) 633-4686 during evenings, weekends, and holidays. The permittee shall provide the Department with the following information in writing within five days of such oral notification.

- a. a description of the noncomplying discharge including the name of the stream and the impact upon the receiving waters;
- b. cause of noncompliance;
- c. the duration of the period of noncompliance and the anticipated time the condition of noncompliance is expected to continue;
- d. steps taken by the permittee to reduce and eliminate the noncomplying discharge;
- e. steps to be taken by the permittee to prevent recurrence of the condition of noncompliance;
- f. a description of the accelerated or additional monitoring to determine the nature and impact of the noncomplying discharge; and
- g. the results of the monitoring described in f. above.

2. Change in Discharge

The permittee shall report any anticipated facility expansions, production increases, or process modifications which will result in new, different or an increased discharge of pollutants by submitting a new application at least 180 days prior to the commencement of the changed discharge except that if the change only affects a listed pollutant and will not violate the effluent limitations specified in this permit, by providing written notice to the Department. Following such notice, the permit may be modified by the Department to include new effluent limitations on those pollutants.

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3. Facility Operation and Quality Control

All waste collection, control, treatment and disposal facilities shall be operated in a manner consistent with the following:

- a. Facilities shall be operated efficiently to minimize upsets and discharges of excessive pollutants.
- b. The permittee shall provide an adequate operating staff qualified to carry out operation, maintenance and testing functions required to ensure compliance with this permit. Superintendents and operators must be certified by the Board of Waterworks and Waste Systems Operators located at Montgomery Park Business Center, 1800 Washington Boulevard, STE- 410, Baltimore, Maryland 21230 in accordance with Title 12 of Environmental Article, Annotated Code of Maryland, and Section 26.06.01 of the COMAR.
- c. Facility maintenance work, which adversely affects or may adversely affect the discharge quality shall be scheduled during non-critical water quality periods.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of this State, human health or the environment resulting from noncompliance with any effluent limitations specified in this permit, and must perform accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

Any bypass of treatment facilities is prohibited unless the bypass does not cause any violations of the effluent limitations specified in Special Condition II.A, and is for essential maintenance to assure efficient operation, or unless the permittee can prove that:

- a. the bypass is unavoidable to prevent loss of life, personal injury, or substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources; and
- b. there are no feasible alternatives to the bypass; and

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- c. the Department receives notification pursuant to General Condition III.B.1 above. Where the need for a bypass is known (or should have been known) in advance, this notification shall be submitted to the Department for approval at least ten days before the date of the bypass or at the earliest possible date if the period of advance knowledge is less than ten days; and
- d. the bypass is allowed under conditions approved by the Department to be necessary to minimize adverse effects.

6. Conditions Necessary for Demonstration of Upset

An upset shall constitute an affirmative defense to an action brought for noncompliance with technology-based effluent limitations only if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

- a. an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. the permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;
- c. the permittee submitted a 24-hour notification of upset in accordance with the reporting requirements of General Condition III.B.1 above;
- d. the permittee submitted, within five calendar days of becoming aware of the upset, documentation to support and justify the upset; and
- e. the permittee complied with any remedial measures required to minimize adverse impact.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

7. Sewage Sludge Requirements

The permittee shall comply with all State and federal laws and regulations regarding Sewage Sludge Management, and with any regulations promulgated pursuant to Environment Article, Section 9-230 et seq. or to the Clean Water Act, Section 405 (d). A Sewage Sludge Utilization Permit is required for the collection, handling, burning, storage, treatment, land application, disposal, or transportation of sewage sludge, processed sewage sludge, or any product containing these materials in Maryland.

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8. Power Failure

The permittee shall maintain compliance with the effluent limitations and all other terms and conditions of this permit in the event of a reduction, loss or failure of the primary source of power to the wastewater collection and treatment facilities.

9. Right of Entry

The permittee shall allow the Secretary of the Department, the Regional Administrator of the Environmental Protection Agency, and their authorized representatives, upon the presentation of credentials to enter upon the permittee's premises and:

- a. to have access to and to copy any records required to be kept under the terms and conditions of this permit;
- b. to inspect any monitoring equipment or monitoring method required in this permit;
- c. to inspect any collection, treatment, pollution management, or discharge facilities required under this permit; or
- d. to sample any discharge of pollutants.

10. Property Rights/Compliance With Other Requirements

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property, invasion of personal rights, or any infringement of federal, State or local laws or regulations.

11. Reports and Information

- a. Upon request, the permittee shall provide to the Department, within a reasonable time, copies of records required to be kept by this permit. The permittee shall also furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit; or to determine compliance with this permit.
- b. All applications, reports or documents submitted to the Department shall be signed and certified as required by COMAR 26.08.04.01 and 40 CFR 122.22.

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- c. Except for data determined to be confidential under COMAR 26.08.04.01, all data shall be available for public inspection at the Department and the Office of the Regional Administrator of the Environmental Protection Agency. Effluent data shall not be considered confidential.
- d. Environment Article, Section 9-343 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, shall upon conviction be punished by a fine of not more than \$10,000 or by imprisonment for not more than six months or by both.

12. Transfer of Ownership or Control

In the event of any change in ownership or control of facilities from which the authorized discharge emanates, the permit may be transferred automatically to another person only if:

- a. the current permittee notify the Department, in writing, of the proposed transfer at least 30 days prior to the proposed transfer date;
- b. the notice includes a written agreement between the existing permittee and a new permittee containing the specific date of proposed transfer of permit coverage, and of responsibilities and liabilities under the permit; and
- c. neither the current permittee nor the new permittee receive notification from the Department, within 30 days of the Department's receipt of the agreement, of its intent to modify, revoke, reissue or terminate the existing permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 12(b) above.

13. New Effluent Standards

This permit shall be revoked and reissued or modified to meet any effluent standard, water quality standard or prohibition established under the Environment Article, the Clean Water Act, or regulations promulgated thereto, and the permittee shall be so notified.

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14. Industrial Users

The permittee shall require all industrial users of the wastewater treatment facility to comply with user charges as established by the permittee, pursuant to Section 9-326(a)(i) of the Environment Article.

15. Noncompliance

Nothing in this permit shall be construed to preclude the institution of any legal action for noncompliance with State, federal or local laws and regulations.

16. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action against the permittee or to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or under the Environment Article.

17. Waterway Construction and Obstruction

The permit does not authorize the construction or placing of physical structures, facilities, debris, or the undertaking of related activities in any waters of this State including the 100 year flood plain.

18. Construction Permit

This permit is not a permit to construct. For a new facility, in order to make this permit valid, a construction permit shall be obtained to meet the requirements of COMAR 26.03.12.03(A) and Environment Article, Section 9-204(d).

19. Severability

If any provision of this permit shall be held invalid for any reason, the remaining provisions shall remain in full force and effect, and such invalid provisions shall be considered severed and deleted from this permit.

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C. Wastewater Collection System

This permit shall not authorize discharges from the wastewater collection system for this facility.

1. Reporting Requirements

Pursuant to Environment Article Sub title 9-331.1, the permittee must report sanitary sewer overflows (SSOs) which result in the direct or potential discharge of raw or diluted sewage into the surface waters or ground waters of the State to the Water Management Administration's Compliance Program. Concurrently, the permittee shall also notify the local health department. Such reports must be made via telephone as soon as practicable, but no later than 24 hours after the time that the permittee became aware of the event. Reportable SSOs include, but are not limited to, overflows into the surface of the ground, into waterways, storm drains, ditches or other manmade or natural drainage conveyances to surface or ground waters which are reasonably likely to reach waters of the State. Overflows that are wholly contained within buildings and not likely to discharge to waterways need not be reported. Treatment plant bypasses shall be reported under General Condition III.B.1. Telephone reports shall be made to (410) 537-3510 on weekdays between 8:00 a. m. and 5:00 p.m. After hours telephone notification shall be made to emergency response number at (866) 633-4686.

When the incident is reported to the Department, the following information needs to be included:

- a. the location of the overflow, including city or county,
- b. the name of the receiving water, if applicable;
- c. an estimate of the volume of sewage discharged;
- d. a description of the sewer system or treatment plant component from which the overflow was released (such as manhole, crack in pipe, pumping station wet well or constructed overflow pipe);
- e. an estimate of the overflow's impact upon public health and to waters of the State;
- f. the cause or suspected cause of the overflow;
- g. the estimated date and time when the overflow began and stopped or the anticipated time the overflow is expected to continue;

III. GENERAL CONDITIONS

- h. if known at the time of reporting, the steps taken or planned to reduce, eliminate and prevent reoccurrence of the overflow and a schedule of major milestones for those steps; (if unknown at the time the telephone report is made, the steps must be included in the written reports submitted under general conditions III.C.2).
- i. if known at the time of reporting, measures taken or planned to mitigate the adverse impact of the overflow and a schedule of major milestones for those steps (if unknown at the time the telephone report is made, the steps must be included in the written reports submitted under general conditions III.D.2); and
- j. whether there has already been a notification to the public and other City or County Agencies or Departments and how notification was done.

2. Written Reports

Within 5 calendar days following telephone notification of the event, the permittee shall provide MDE with a written report regarding the incident that includes, at a minimum, the information cited above.

The permittee shall maintain copies of all overflow records and reports, work orders associated with investigation of overflows, a list and description of complaints from customers or others related to overflows (including backups of sewage in to houses or businesses), and documentation of performance and implementation measures for minimum period of three years and shall make this information available to MDE for review upon written request.

This wastewater collection system provision may be superseded by a general permit for collection systems, when such a permit is issued by MDE and the permittee have been accepted for registration under the permit.

3. Other Requirements

The permittee, as directed by the State or local health department, shall also be responsible for posting notification in close proximity to the affected area/stream and for conducting appropriate water quality sampling as deemed necessary.

III. GENERAL CONDITIONS

D. Permit Expiration, Modification, or Revocation

1. Expiration of Permit

This permit and the authorization to discharge shall expire at midnight on the expiration date of the permit unless the permittee has submitted a timely and complete reapplication pursuant to Section II.I.

2. [Reserved.]

3. Permit Modification - Request of Responsible Permittee

A permit may be modified by the Department upon the written request of the permittee and after notice and opportunity for a public hearing in accordance with the provisions set forth in COMAR 26.08.04.10.

4. Permit Modification, Suspension, Revocation - Violation of Laws

A permit may also be modified, suspended or revoked by the Department, in the event of a violation of the terms or conditions of the permit, or of State or federal laws and regulations and in accordance with the provisions set forth in COMAR 26.08.04.10. This permit may be suspended or revoked upon a final, unreviewable determination that the permittee lacks, or is in violation of, any federal, state, or local approval necessary to conduct the activities authorized by this permit. |

IV. CIVIL AND CRIMINAL PENALTIES

A. Civil Penalties for Violations of Permit Conditions

In addition to civil penalties for violations of State water pollution control laws set forth in Section 9-342 of the Environment Article, Annotated Code of Maryland, the Clean Water Act provides that any person who violates Section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act or in a permit issued under Section 404 of the Act, is subject to a civil penalty not to exceed \$32,500 per day for each violation.

B. Criminal Penalties for Violations of Permit Conditions

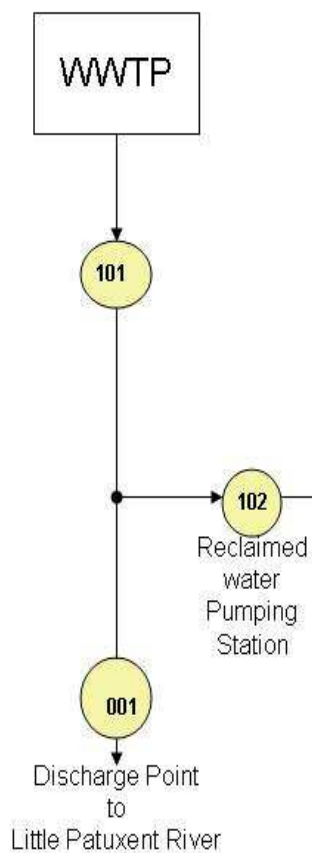
In addition to criminal penalties for violations of State water pollution control laws set forth in Section 9-343 of the Environment Article, Annotated Code of Maryland, the Clean Water Act provides that:

1. any person who negligently violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or in a permit issued under Section 404 of the Act, is subject to a fine of not less than \$2,500 nor more than \$27,500 per day of violation, or by imprisonment for not more than one year, or by both.
2. any person who knowingly violates Section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or in a permit issued under Section 404 of the Act, is subject to a fine of not less than \$10,000 nor more than \$100,000 per day of violation, or by imprisonment for not more than three years, or by both.
3. any person who knowingly violates Section 301, 302, 306, 307, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or in a permit issued under Section 404 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, is subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both.
4. any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with or renders inaccurate any monitoring device or method required to be maintained under the Act, is subject to a fine of not more than \$10,000 or by imprisonment for not more than two years, or by both. |

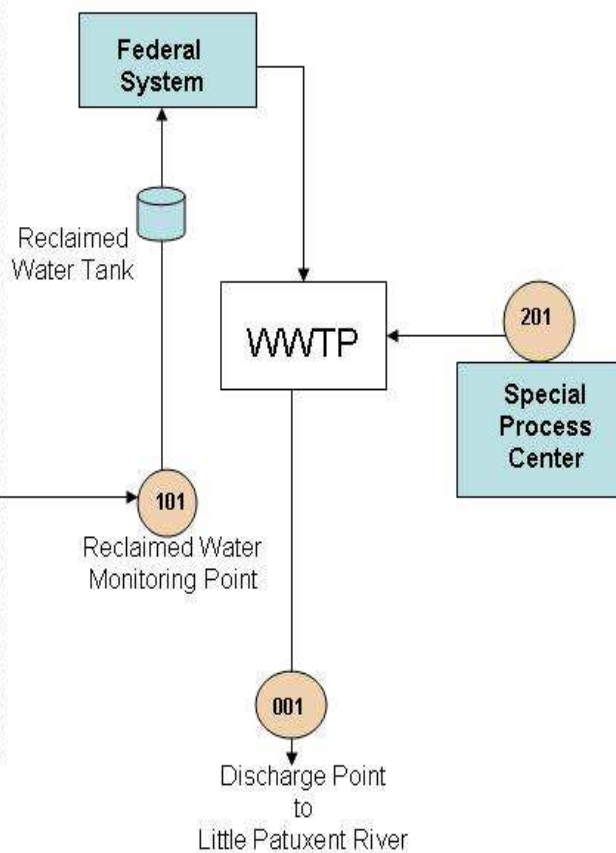
V. MAP SHOWING DISCHARGE POINT LOCATION

FLOW DIAGRAM

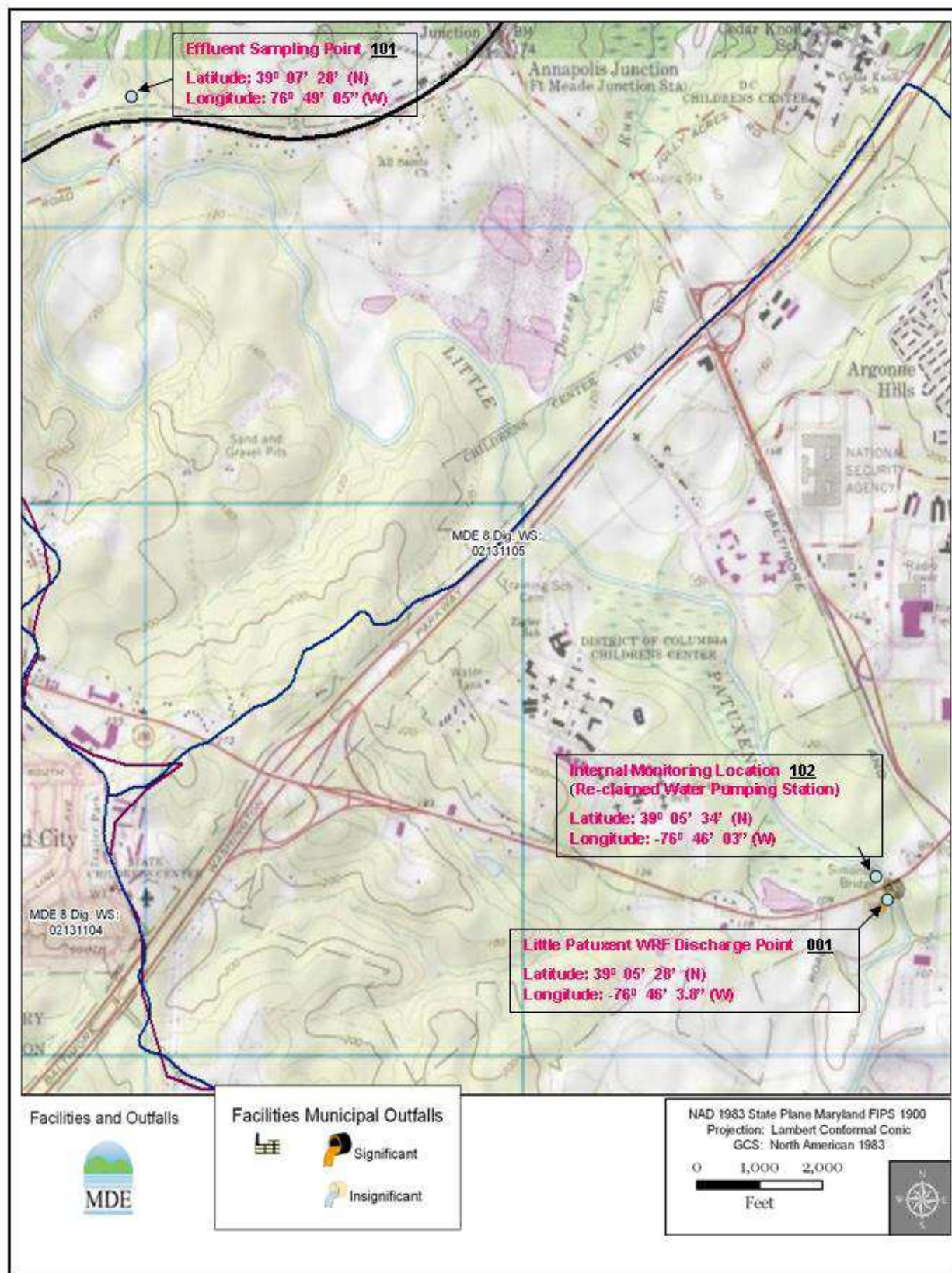
Little Patuxent WRP



Fort Meade WWTP



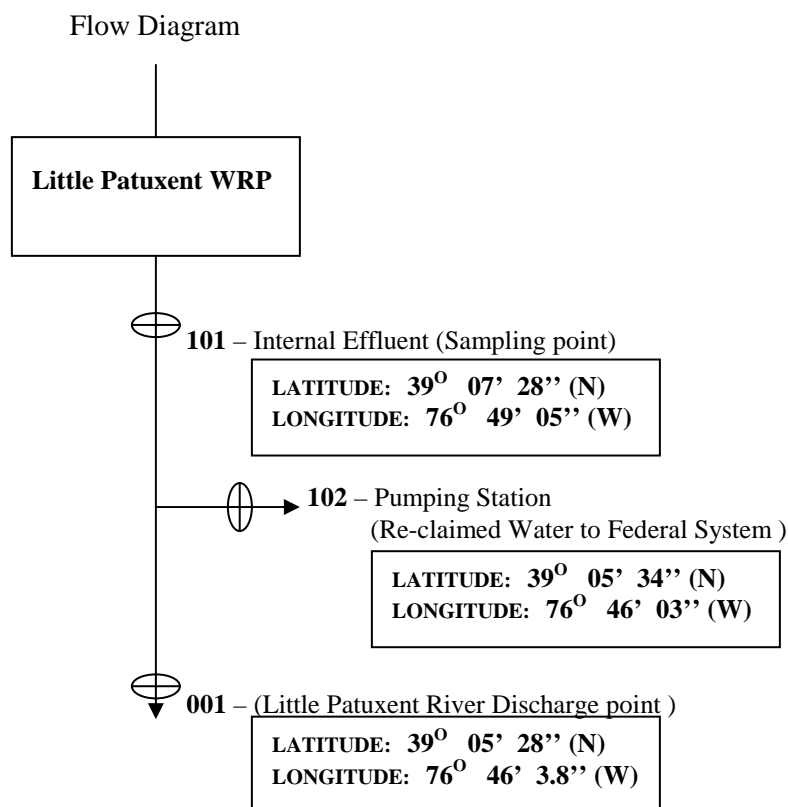
V. MAP SHOWING DISCHARGE POINT LOCATION



VI. NPDES PROGRAM

APPENDIX - A

Outfalls and Monitoring Points Locations



Internal Effluent Sampling Point 101 is the final effluent sample location prior to the diversion of the reclaimed water to the Federal System conveyance pipe (See Flow Diagram and Map, **Section V.**)

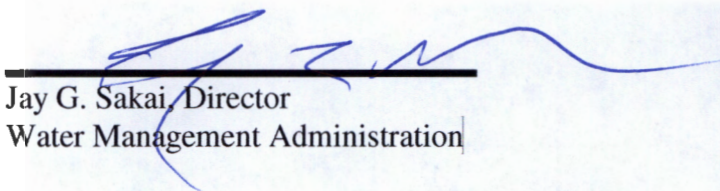
Internal Sampling Point 102 is the re-claimed water diversion location (See Flow Diagram and Map, **Section V.**)

Discharge Point 001 is the stream's point of discharge at the Little Patuxent River (See Flow Diagram and Map, **Section V.**)

VI. NPDES PROGRAM

On September 5, 1974, the Administrator of the U.S. Environmental Protection Agency approved the proposal submitted by the State of Maryland for the operation of a permit program for wastewater discharges pursuant to Section 402 of the Clean Water Act.

Pursuant to the aforementioned approval, this discharge permit is both a State of Maryland discharge permit and an NPDES permit.



Jay G. Sakai, Director
Water Management Administration